

RAU (L.S.)

A Comparative Study of the Different Methods of Treating Posterior Displacements of the Uterus, both Mechanical and Operative.

BY

LEONARD S. RAU, M.D.

Chief of Division in Operative Gynecology, New York Post-Graduate Medical School and Hospital; Attending Gynecologist Montefiore Home; Attending Gynecologist to New York Dispensary for Women, etc.

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As is well-known, posterior displacement of the uterus is a very common affection, occurring in from fifteen to twenty per cent. of all gynecological cases, and it is by far the most common form of displacement. It gives rise to varied series of symptoms, more or less severe, and for the relief of which, innumerable instruments have been devised. It shall not be our object here to go into the history of, or give a detailed description of, all these methods, but as briefly as possible to review the most important manipulations and operations, which are being performed at the present time, giving a short description of each method, the indications for the different operations, and then to show, if possible, the advantages or disadvantages which one may have over another. We therefore beg leave to call your attention this evening to the following operations and mechanical procedures:

1. The operation known as *Schultz's*¹ consists in deeply narcotizing the patient, and with two fingers of one hand in the rectum and the thumb in the vagina, the other hand over the abdomen, the adhesions, which bind the uterus down are broken up; the uterus then brought forward and kept in position by means of a pessary. The advantages of the procedure are that there is no risk of sepsis, nor shock from hemorrhage, nor the necessity of opening the peritoneal cavity. Its disadvantages are that it cannot always be accomplished, and even when it has been, there

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is the liability of the uterus falling back in its old position, when the support is removed, and the necessity of wearing a pessary which cannot always be well borne. The operation is only indicated in cases where adhesions exist which can be readily broken up, and where the patient is not willing to consent to some other operative measure which offers more positive results.

2. IN THE BRANDT METHOD, which in reality cannot be called an operation, the uterus and ligaments are massaged and the uterus is lifted forward, the massaging strengthening the ligaments, depleting the enlarged and congested uterus, and causing absorption of the exudation which may be binding down the uterus. This method is indicated as a preparatory treatment for some of the other operations, and in cases in which the patient is too enfeebled to stand operative measures, and when she is willing and has the time to submit to constant and prolonged treatment.

3. HYSTERORRHAPHY; HYSTEROPEXY, OR VENTRAL FIXATION².—This is performed by placing the patient in the Trendelenburg position, making an incision through the abdominal wall about two inches long, beginning about an inch above the pubes, opening the peritoneal cavity, raising up the uterus, either by means of a sound passed per vagina, or by passing two or three fingers into the abdomen and breaking up existing adhesions, then carrying the uterus forward with a temporary ligature or forceps. Two or three interrupted sutures (preferably silk-worm gut) are then passed through the entire thickness of the abdominal wall on one side, then through the anterior uterine wall near the fundus, and then through the abdominal wall on the other side. Many operators scarify the anterior uterine wall, in order to obtain firmer adhesion. The abdominal wound is then closed in the usual way and the uterine sutures left in situ for three weeks, at the end of which time the uterus will be found forward and adherent to the abdominal wall. The advantages of the operation are the facility with which it may be performed, its comparative safety to the patient when *strict asepsis* has been observed, the ability of breaking up all the adhesions thoroughly, which bind the uterus down, affording an opportunity of carefully examining the ovaries and tubes, and at the same time removing them should they be found diseased. Quite recently, however, Drs. Polk and Krug have gone so far as to recommend the removal of the uterus whenever

the ovaries and tubes are found to be sufficiently diseased to require their removal. We do not believe that the profession at large is ready to accept such a radical procedure as yet. The operation should always be preceded by a thorough dilatation of the cervix and curettage, so that the uterus be made absolutely aseptic. If this be done and we operate aseptically, the greatest objection to the operation, namely, opening the peritoneal cavity, is done away with. A few years ago, Dr. Krug³ performed this operation without opening the peritoneum, by passing a needle through the abdominal wall, scarifying the peritoneal surfaces and then suturing. He has since abandoned this procedure. Another method of performing the operation (Kelly⁴) is after opening the abdomen, to pass an interrupted buried suture, one on either side, through the round ligament, close to its uterine attachment, and stitching them to the abdominal wall and then closing the abdomen as usual. Dudley⁵, who claims that it is not normal for the uterus to be attached to the abdominal wall, has modified the operation by denuding, with a pair of scissors, the peritoneum in an oval shape over the anterior uterine wall, then raising the round ligament on either side, denuding its peritoneal layer in a similar manner, and bringing the three denuded surfaces in opposition with continuous cat-gut sutures and closing the abdomen.

4. SHORTENING THE ROUND LIGAMENTS (ALEXANDER'S OPERATION⁶).—This operation is performed by first finding the spine of the pubes; keeping this as a guide, an incision is made about two inches long, running parallel to Poupart's ligament. The incision extends down as far as the intercalumnar fascia, and through this, just to the side of the spine, a knuckle of fat is usually found protruding, and alongside of it a small artery. Under this mass an aneurism needle is passed close to the bone, and this usually includes the ligament which is recognized by its round, glistening contour, and by making traction upon it, the uterus can be felt to move, if a sound or finger be passed in through the vagina. The same method is adopted on the opposite side. The ligaments are next drawn forward as far as possible and sewed into the pillars of the ring, interrupted sutures being employed. Finally the external ring is closed with a continuous suture. Many operators employ only one row of sutures. Indications for the operation are freely movable uteri, inability on the part of the patient to

wear a pessary, absence of disease of the ovaries and tubes. It is contra-indicated where adhesions exist so that the uterus cannot be drawn forward, or where there is disease of the adnexa. Objections are the difficulty of finding the ligament, which is quite common in very stout women, the danger of its tearing from its uterine attachment, its being so thin that it is of little value in holding the uterus forward, and, finally, the subsequent danger of inguinal hernia, which has occurred in quite a few cases. Drs. Edebohls⁷ and Newmann⁸ have modified the operation by opening the inguinal canal along its entire length, thus exposing the ligament more fully, and picking it up at the point where it emerges from the internal ring. Wylie⁹ and Emile Bode¹⁰ shorten the round ligament by opening the abdomen, folding in the ligament and suturing it.

5. SCHUCKING'S¹¹ METHOD consists in thoroughly dilating the uterus, placing the patient in the exaggerated lithotomy position, bringing the fundus forward with a sound, and drawing the cervix down. A strong double-threaded cachée needle is passed through the uterine canal to the fundus; this having been pushed forward as far as possible, the anterior vaginal pushed upward and backward, the needle is pushed through the fundus and vaginal wall, the ligature seized and drawn down and tied, this bringing the uterus in extreme ante flexion. Zweifel¹² has modified the operation somewhat. He employs lead plates, and thus prevents the sutures from cutting out. This method has not had many followers.

6. VAGINAL FIXATION (MACKENRODT'S OPERATION¹³)—This operation, which has been somewhat modified by Dührssen¹⁴, Winters¹⁵, and several others, is essentially performed as follows: The anterior vaginal wall is grasped with a vulsellum forceps about one-half an inch below the urethral orifice, and another vulsellum is fastened into the cervix, this being drawn down outside of the vulva, if possible. By making traction upon the two vulsella in opposite directions the anterior vaginal wall is put upon the stretch. An incision is then made in the median line through the vaginal mucous membrane only, and extending down to just below the base of the bladder. This point is determined by means of a sound passed into the bladder and its lowermost portion accurately ascertained. Just below this point a bow-shaped incision is made at right angles to the last incision, this opening into the vesico-uterine space. The connective tissue and bladder are next

carefully pushed back by blunt dissection until the bladder is well out of the way. This may cause considerable hemorrhage, but it quickly ceases. A heavy sound is then passed into the uterus up to the fundus, the uterus is raised and pushed forward until the fundus appears in the vesico-uterine space. This has to be done with considerable care, and too much force must not be exerted lest the sound puncture the uterine wall. After the uterus has been brought into this position an assistant holds it there firmly by pressing steadily upon the sound, and two or three silk ligatures about one-half an inch apart are passed through the vaginal incision on one side as high up as possible, then through the anterior wall of the fundus and next through the vaginal wall on the opposite side and the ligatures tied. We must be sure that our stitches grasp sufficient amount of uterine tissue to hold it. If a cystocele exists, a strip of vaginal mucous membrane is denuded on either side. Finally, the vaginal incision is closed by means of a continuous catgut suture. This operation, like those just described, should always be preceded by thorough cervical dilation and curetting. The operation is a comparatively new one and has only been performed by a few gynecologists in this country. Dr. Vineberg, who has probably performed it most frequently, has had excellent results in all but one or two cases. At least six months or longer must elapse before we can be positive of our results. A friend of mine who has just returned from Berlin informs me that in Prof. Martin's clinic the operation is now invariably performed in place of Alexander's. Dr. Orthmann¹⁶ has invented a new instrument for this operation which is a combination of a sound and a double-hooked tenaculum. The sound is used in the same manner as the one described above, and after the uterus is pushed forward, the tenaculum is inserted into the anterior lip of the cervix and the instrument locked, and thus the uterus is held in the anteverted position until the sutures have been passed and tied. After treatment consists in catheterization for several days, keeping the patient in bed for at least two weeks and removing the silk ligatures at the end of the third week, at the expiration of which time the uterus will be found to be firmly adherent to the anterior vaginal wall. The indications for the operation are the same as in Alexander's operation. Contra-indications are, in cases where the adhesions are so great that the uterus cannot be brought forward with the sound, and where there is disease of the adnexa,

also in cases of nulliparæ with the congenital retro-displacements, in which class of cases the uterus soon falls back into its old position. The operation requires considerable technical skill in order to obtain a successful result, and is very difficult of accomplishment when there is a very small, narrow vagina, and where the cervix cannot be drawn down to the vulva.

As regards subsequent pregnancies, a number of cases have been reported in which pregnancy occurred and went on to full term after hysterorrhaphy and Alexander's operation. In regard to the Mackenrodt operation, only a few such cases have been reported as yet, no doubt due to the short length of time which has elapsed since the operation was first performed.

The mechanical means for overcoming posterior displacements consist in placing the patient in the knee-chest position, by which means, the force of gravity throws the fundus forward, or by reposition with the sound or fingers, and after this has been accomplished, holding the uterus in place by a suitable fitting pessary. It may be necessary for the patient to undergo a preparatory treatment of tampons before she can wear a pessary. There are many cases, however, in which no pessary can be found which will hold the uterus in position, and other cases again in which the discomfort, caused by the pessary, is so great that it cannot be worn. In this class of cases we are compelled to resort to one of the above described operations.

CONCLUSIONS.—In those cases in which the uterus cannot be retained in its normal position by mechanical means, we will obtain most satisfactory results by resorting to *hysterorrhaphy*, *shortening the round ligament* (*Alexander*), or *vaginal fixation* (*Mackenrodt*).

Hysterorrhaphy is to be recommended in cases where strong, unyielding adhesions are present, and where there is co-existing disease of the adnexa. Otherwise, either Alexander's or Mackenrodt's operations are to be preferred. Owing to the difficulties which many have in finding the ligament, its liability to tear and the risk of subsequent hernia, the vaginal fixation, will, in all possibility be the operation selected as soon as the technique has been more fully perfected, the slight risk of injury to the bladder appreciated, and the difficulty of bringing and holding the uterus forward, while operating, overcome by means of a properly constructed instrument.

72 West 55th Street.

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